## IN THE CLAIMS:

Please cancel claim 22 without estoppel or disclaimer, and amend claims 4, 5, 8, 10, 11, 13, 16-18, 23 and 25 as set forth below:

1. (Previously presented) An interface system between a fixed impedance node and a wide-band receiver for converting data signals of different data rates to converted data signals adapted for the wide-band receiver, the interface system comprising:

a first set of elements connected between the fixed impedance node and the wide-band receiver for converting first data signals at a first data rate during a first time period to first converted data signals adapted for the wide-band receiver, the first set of elements providing a first time constant response to the first data signals; and

a second set of elements connected between the fixed impedance node and the wide-band receiver for converting second data signals at a second data rate during a second time period to second converted data signals adapted for the wide-band receiver, the second set of elements providing a second time constant response to the second data signals.

2. (Original) The interface system of claim 1 wherein the first set of elements and the second set of elements have one or more elements in common.

3. (Previously presented) The interface system of claim 2 wherein the one or more elements in common decouple a DC voltage associated with the first and second data signals.

4. (Currently amended) The interface system of claim 2 wherein the first set of elements comprises a first capacitor connected between the fixed impedance node and a first input of the wide-band receiver, and a first resistor having one end connected between the first capacitor and the first input of the wide-band receiver, the other end of the first resistor connected to ~~and~~ an AC ground; and wherein the second set of elements comprises the first capacitor, a second capacitor connected to the AC ground and the second input of the wide-band receiver, and a second resistor connected between the first capacitor and the second capacitor.

5. (Currently amended) The interface system of claim 2 wherein the first set of elements comprises a first capacitor connected between the fixed impedance node and a first input of the wide-band receiver, a first resistor having one end connected to the first capacitor and the first input of the wide-band receiver ~~an AC ground, and~~, the other end of the first resistor connected to a second resistor connected between the first resistor and ~~the AC ground,~~ an AC ground; and wherein the second set of elements comprises the first capacitor, the first resistor and a second capacitor connected between the AC ground, a second input of the wide-band receiver, and the first resistor in parallel with the second resistor.

6. (Canceled)

7. (Previously presented) The interface system of claim 1 wherein the first and second data signals are differential signals and the interface system has a differential circuit topology.

8. (Currently amended) An AC coupling interface system coupling a low impedance transmission line to an amplifier for the non-simultaneous transmission of digital data signals at different data rates between a fixed impedance transmission line and ~~an~~ the amplifier for converting the non-simultaneous digital data signals of the different data rates to converted digital data signals adapted for the amplifier, the AC coupling interface system comprising:

a first capacitive element connected to the fixed impedance transmission line for receiving the digital data signals, the first capacitive element connected to a first input of the amplifier;

a first resistive element having one end connected to the first capacitive element and the first input of the amplifier, the other end of the first resistive element connected to a second input of the amplifier and to a reference voltage source, the first resistive element in conjunction with the first capacitive element providing a first time constant response to first digital data signals at a first data rate; and

a second resistive element connected between the first capacitive element and a second capacitive element, the second capacitive element connected to the reference voltage source and the second input of the amplifier, the second resistive element in conjunction with the second capacitive element providing a second time constant response to second digital data signals at a second data rate.

9. (Original) The AC coupling interface system of claim 8 wherein the first capacitive element has a larger capacitance than the second capacitive element and the first resistive element has a larger resistance than the second resistive element.

10. (Currently amended) The AC coupling interface system of claim 9 wherein the first data rate is ~~in the Kilobit per second range and the second data rate is in the Megabit per second to Gigabit per second range~~approximately 9.6 Kilobits per second and the second data rate is approximately 2.5 Megabits per second.

11. (Currently amended) The AC coupling interface system of claim 8 wherein the fixed impedance transmission line is one of the group consisting of a 50-ohm coaxial cable, a 75-ohm coaxial cable, a stripline, a microstripline, and a PCB controlled impedance trace.

12. (Previously presented) The AC coupling interface system of claim 11 wherein the second resistive element provides impedance matching for the fixed impedance transmission line.

13. (Currently amended) A differential AC coupling network between nodes providing differential digital data signals and a differential amplifier for converting the differential digital data signals of different data rates to converted digital data signals adapted for the differential amplifier, comprising:

a first input capacitor connected between a first node and a first input of the differential amplifier, the first input capacitor providing DC voltage isolation for signals from the first node;

a second input capacitor connected between a second node and a second input of the differential amplifier, the second input ~~capacitors~~ capacitor providing DC voltage isolation for signals from the second node;

a first load resistor connected between the first input capacitor and a reference voltage source, the first load resistor in combination with the first input capacitor providing a first time constant response to first differential digital data signals at a first data rate during a first time period;

a second load resistor connected between the second input capacitor and the reference voltage source, the second load resistor in combination with the ~~the~~ second input capacitor providing the first time constant response to the first differential digital data signals at the first data rate during the first time period;

a first series combination of a first matching resistor and a first matching capacitor connected between the first input capacitor and the reference voltage source, the first series combination providing a second time constant response to second differential digital data signals at a second data rate during a second time period; and

a second series combination of a second matching resistor and a second matching capacitor connected between the second input capacitor and the reference voltage source, the second series combination providing the second time constant response to the second differential digital data signals at the second data rate during the second time period.

14. (Previously presented) The differential AC coupling network of claim 13 wherein the first and second nodes are fixed impedance transmission lines.

15. (Original) The differential AC coupling network of claim 13 wherein the differential amplifier is an input stage of a wide-band receiver.

16. (Currently amended) The differential AC coupling network of claim 13 wherein each of the first and second matching resistors ~~have~~ has a lower resistance value than the first and second load resistors.

17. (Currently amended) The differential AC coupling network of claim 13 wherein each of the first and second matching resistors ~~have~~ has a resistance of approximately 50 ohms.

18. (Currently amended) An interface system between a fixed impedance node and a wide-band receiver for converting digital data signals of different data rates to converted data signals adapted for the wide-band receiver, comprising:

means for converting first digital data signals at a first data rate to first converted digital data signals adapted for the wide-band receiver during a first time period, and providing a first time constant response to the first digital data signals; and

means for converting second digital data signals at a second data rate to second converted digital data signals adapted for the wide-band receiver during a second time period, and providing a second time constant response to the second digital data signals.

19. (Previously presented) The interface system of claim 18 wherein the first and second digital data signals are differential signals and the interface system has a differential circuit topology.

20. (Previously presented) The interface system of claim 18 further comprising means for isolating a DC voltage from the fixed impedance node to the wide-band receiver.

21. (Original) The interface system of claim 20 further comprising means for providing a reference DC bias voltage to the wide-band receiver.

22. (Canceled)

23. (Currently amended) The interface system of ~~claim 22~~ claim 18 wherein the first data rate is approximately 2.5 Megabits per second and the second data rate is approximately 9.6 Kilobits per second.

24. (Previously presented) The interface system of claim 18 wherein the means for converting the first digital data signals further comprises means for matching an output impedance of the fixed impedance node.

25. (Currently amended) A method of converting digital data signals of different data rates received from a fixed impedance node to converted digital data signals adapted for a wide-band receiver, the method comprising:

generating first converted digital data signals by an AC coupling network using a first time constant response of the AC coupling network in response to receiving first digital data signals at a first data rate from the fixed impedance node, the first

time constant response configured to reduce or eliminate distortions in the first converted digital data signals; and

generating second converted digital data signals by the AC coupling network using a second time constant response of the AC coupling network in response to receiving second digital data signals at a second data rate from the fixed impedance node, the second time constant response configured to reduce or eliminate distortions in the second converted digital data signals.

26. (Previously presented) The method of claim 25 further comprising matching an output impedance of the fixed impedance node with the AC coupling network for a maximum power transfer of the first and second digital data signals.

27. (Canceled).